Translation

PCT/JP2003/009585

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CRL-PCT-040	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/JP2003/009585	International filing date (*day/month/year*) 29 July 2003 (29.07.2003)	Priority date (*day/month/year*)
International Patent Classification (IPC) or national classification and IPC H04B 7/08 , H04B 7/10, H04B1/26		
Applicant NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY		

1.° This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
22 December 2003 (22.12.2003)	15 September 2004 (15.09.2004)
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP2003/009585

I. Basis of the report

1. With regard to the elements of the international application:*

☐ the international application as originally filed

☒ the description:

pages 1-9, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☒ the claims:

pages 5,10, as originally filed

pages _____, as amended (together with any statement under Article 19

pages _____, filed with the demand

pages 1-4, 6-9, filed with the letter of 28 April 2004 (28.04.2004)

☒ the drawings:

pages 1-8, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP03/09585

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims		NO
Industrial applicability (IA)	Claims		YES
	Claims		NO

2. Citations and explanations

Document 1: JP, 2003-179516, A (Communication Research Laboratory)
June 27, 2003 (06.27.03), Full text, Fig. 5
& US, 2003/0109236, A1
& CA, 2408893, A1

Document 2: JP, 10-93335, A (The Boeing Co.)
April 10, 1998 (04.10.98), Full text, all drawings
& EP, 0807990, A1 & CA, 2204298, A
& KR, 97077824, A
& US, 6205224, A & CN, 1169540, A

Document 3: JP, 8-213824, A (Nippon Telegraph and Telephone Corporation)
August 20, 1996 (08.20.96)
Paragraphs 0011 and 0014, Fig. 1

Document 4: JP, 11-186947, A (Uniden Corp.)
July 9, 1999 (07.09.99)
Paragraphs 0020-0026, Figs. 1-3

Document 5: JP, 2000-115044, A (K.K. Kyocera DDI Mirai Tsushin Kenkyusho)
April 21, 2000 (04.21.00)
Paragraphs 0023-0025, Fig. 1

Claims 1 and 6

Document 1 discloses a milliwave band radio communication method of a self-heterodyne type, wherein phrase control and amplifier weighting are performed on a detected output that has been detected at a plurality of reception circuits.

Radio communication using a milliwave, wherein a reception circuit combining a small-size plane print antenna and very small plane reception circuit is used, is commonly performed; therefore, no particular difficulty can be found in having milliwave receivers (41-43) disclosed in document 1 (Fig. 5) to serve as a reception circuit combining a small-size plane print antenna and very small plane reception circuit to configure the inventions relating to claims 1 and 6.

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V:

Claims 2 and 7

Document 2 discloses arranging array elements at irregular intervals to one another; therefore, no special point can be found in adopting this constitution to a milliwave band radio communication method disclosed in document 1 to configure the inventions relating to claims 2 and 7.

Claims 3 and 8

Document 3 discloses that intervals of antennas can be changed manually or automatically; therefore, no particular point can be found in adopting this constitution to a milliwave band radio communication method disclosed in document 1 to configure the inventions relating to claims 3 and 8.

Claims 4 and 9

Document 4 discloses three-dimensionally arranging antennas; therefore, no particular point can be found in adopting this constitution to a milliwave band radio communication method disclosed in cited document 1 to configure the inventions relating to claims 4 and 9.

Claims 5 and 10

Document 5 discloses that an antenna used for a transmitter serves as a circularly polarized wave, and an antenna used for a receiver is configured with a horizontally-polarized wave antenna and vertically-polarized wave antenna; therefore, no particular point can be found in adopting this constitution to a milliwave band radio communication method disclosed in cited document 1 to configure the inventions relating to claims 5 and 10.